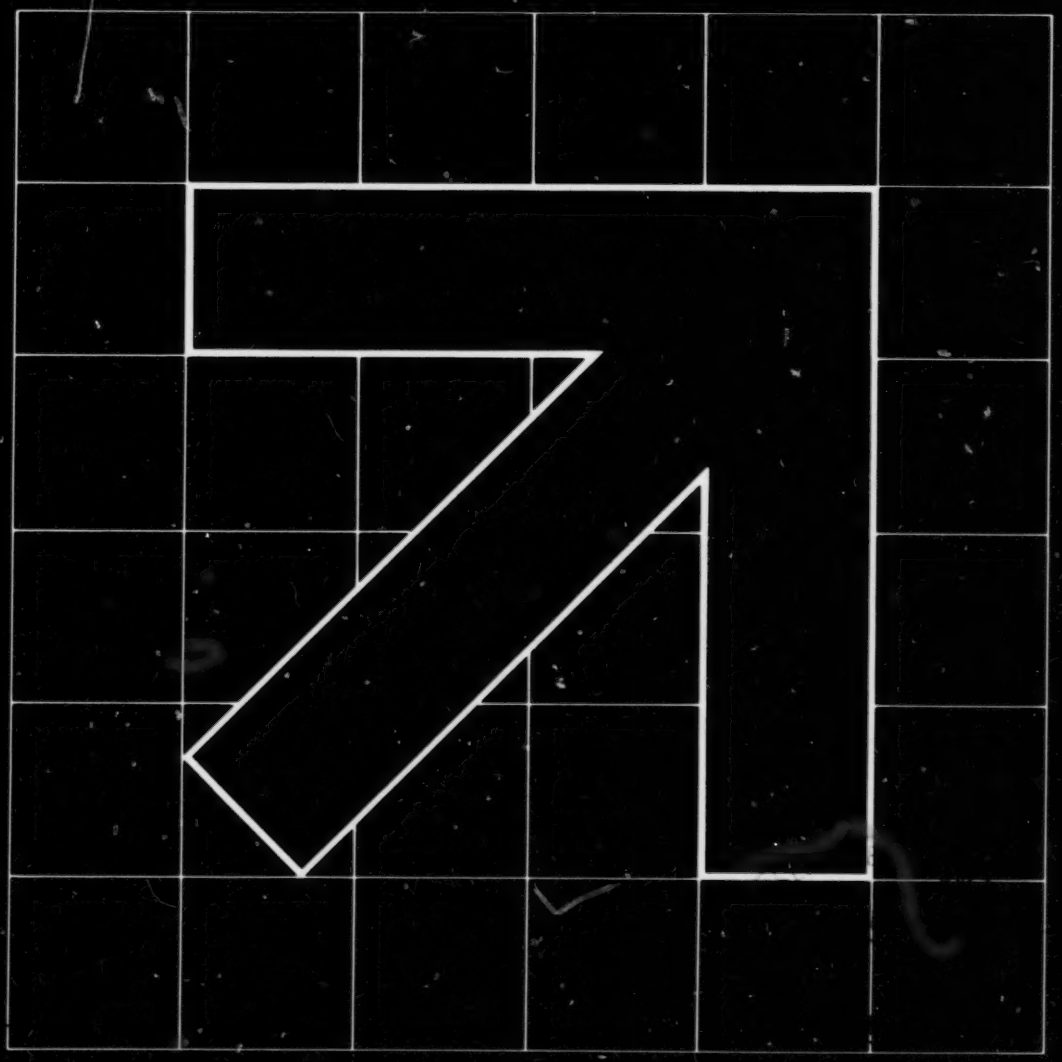
Ministère de l'Énergie et des Ressources

Summary and outlook Energy and Land Sectors



Québec

SUMMARY AND OUTLOOK
ENERGY AND LAND SECTORS

BIBLIOTHÈQUE
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DE L'ASSEMBLÉE NATIONALE

The mandate of the ministère de l'Énergie et des Ressources is geared to the development of natural resources as a growth factor in Québec's economy. The department is responsible for the planning and implementation of the projects and programs required to develop, exploit and process, within the province, Québec's forest, hydraulic, mineral and energy resources. Given their strategic character, energy resources call for the MER's special vigilance.

Québec has a clear advantage because of the abundant natural resources found on its territory. This privileged situation is particularly apparent in the important role these natural resources play, as raw material or processed goods, in Québec exports to foreign markets (46% in 1985). Newsprint (1st), aluminium (3rd), lumber (4th), iron (5th), copper (10th) and electricity (11th) are among our major exports. Inversely, imports of crude oil, petroleum products and natural gas from foreign countries or other Canadian provinces place a very heavy financial burden on Québec ($5.3 billion in 1985).

The development of many Québec regions is rooted in the exploitation of natural resources. Even today, the survival of numerous municipalities is tied to the fate of a single industry, especially in remote regions far from large urban centers such as Montréal and Québec City.

Moreover, since the transformation of forest and mineral resources consumes great amounts of energy, the competitiveness of specialized processing industries depends to a large extent on the availability of abundant energy sources sold at competitive rates.

This report presents an overview of the state of the energy and land sectors in Québec.

The Minister responsible for Mines, Mr. Raymond Savoie, has already presented a similar report for the mineral sector. In that document, he states that 1986 was marked by a drop in Québec shipments of iron (-11.3%), zinc (-44%) and copper (-11.2%). However, the rise in the value of gold offset this decline so that the value of mineral exports remained fairly steady compared with 1985.

As well, the Minister responsible for Forests, Mr. Albert Côté, has summed up the state of the forest sector for 1986. The year was marked by favorable events as well as less positive ones. Production in the sawmill and the pulp and paper industries was very encouraging. A new forest system solidly backed by appropriate legislation came into effect. Québec companies felt the effect of the American decision to impose a 15% surtax on softwood lumber exports and of increased competition on international markets. Indications are that 1987 will be a somewhat more difficult year: application of the surtax and of the new forest system will undoubtedly have an impact on future decisions and orientations.

THE ENERGY SECTOR

A/ Recent developments in the Québec energy sector

a) Energy demand

- Total energy demand

In 1985, Québec's total energy consumption rose for the second consecutive year in terms of absolute value. It reached $29.3 million toe (tons of oil equivalent), an increase of 1.3% over 1984.

This rise in consumption appears limited when compared to the increase in economic activity (growth of the real gross domestic product), up by 4.5% in 1985. Since 1984, Québec has improved the energy efficiency of its production system; consequently, energy consumption per thousand dollars of output fell from 1.02 toe in 1984 to 0.99 toe in 1985.

Calculated on an annual basis, preliminary data available for the first eleven months of 1986 indicate that economic activity continued to increase, and that energy consumption rose by 1.7% over 1985.

- Energy demand by form

As in past years, in 1985 the demand for oil dropped sharply in favor of natural gas and electricity. This development is in keeping with the provincial government's objectives in the energy sector.

In 1985, Québec's consumption by form of energy (not including alternative sources of energy) was distributed as follows: 44.6% of total consumption for oil (compared to 48.8% in 1984), 39.0% for electricity (36.7% in 1984), 15.2% for natural gas (13.1% in 1984) and 1.2% for coal (1.4% in 1984).

In one year, oil lost more than four points, with consumption decreasing by 7.4%. It still remained the most consumed form of energy in this province, but the gap that separated it from electricity was narrowed to only 5.6% in terms of overall energy consumption. This was the first time since 1952 that the share of oil in meeting Québec's energy requirements was at such a level.

Thanks to the effectiveness of its policies on market penetration by oil and natural gas, Québec has become less dependent on oil.

The share of electricity and that of natural gas in energy consumption continued to climb in 1985. Thus, in one year, natural gas consumption increased by 17.8% and that of electricity by 7.3%. In 1985, natural gas and electricity met more than half of Québec's energy requirements (55.2%), compared to only one-third in 1979.

However, the contribution of alternative sources of energy in meeting Québec's needs is signifiant. Alongside conventional forms of energy, these other sources represented 8.4% of Québec's total energy consumption in 1984, and 8.2% the following year. In the present context,

alternative sources of energy are forest biomass (wood and its residues) used for energy purposes in the housing and industrial sectors, and urban biomass, which consists of waste produced by human activity in cities and treated in two public incinerators located in Montréal and Québec City.

Available data for the first eleven months of 1986 indicate that electricity continued to make inroads on the Québec market. The share of electricity in energy consumption reached 40.4%, compared to 39% in 1985. It is the first time that electricity meets more than two-fifths of Québec's energy needs. At Hydro-Québec, sales for 1986 jumped by 6.8%. The share of natural gas in energy consumption stabilized at 15%. This means that, on an annual basis, natural gas sales for the first eleven months of 1986 totalled 177.5 billion cubic feet.

The inroads made by electricity again translated into a loss for petroleum products. The demand for petroleum energy products slipped 1.8% during the first eleven months of 1986, which reduced the share of petroleum from 44.6% (1985) to 43.1% in Québec energy consumption.

- Energy demand by sector

An examination of energy consumption by sector reveals that the share of the residential sector rose from 21.1% in 1984 to 22.0% in 1985, and that of the industrial sector from 36.2% to 37.0%, while the share of the transportation sector remained virtually unchanged for the same period (26.4% in 1985). The share of the commercial sector dropped slightly and stood at only 14.6%.

The relative importance of the industrial sector in energy consumption has risen steadily since 1976, when it reprensented only 30.7% of consumption. This is explained by the rapid growth of industries that consume large amounts of energy, and by efforts to reduce consumption in other sectors of Québec's economy.

Table 1

ENERGY CONSUMPTION IN QUÉBEC

	1985		1986[e]	
	10^3 toe	%	10^3 toe	%
OIL[1]	13 081.7	44.6	12 845.4	43.1
COAL[2]	360.8	1.2	452.8	1.5
NATURAL GAS[3]	4 470.7	15.2	4 472.4	15.0
ELECTRICITY	11 418.0	39.0	12 046.4	40.0
TOTAL	29 331.2	100.0	29 817.0	100.0

1. The total includes crude oil (losses and adjustments) and the following products: gasoline, aviation gasoline, jet fuel, kerosene, diesel fuel, light fuel oil, heavy fuel oil, petroleum coke, liquified petroleum gas and still gas.

2. Includes coke and coke-oven gas.

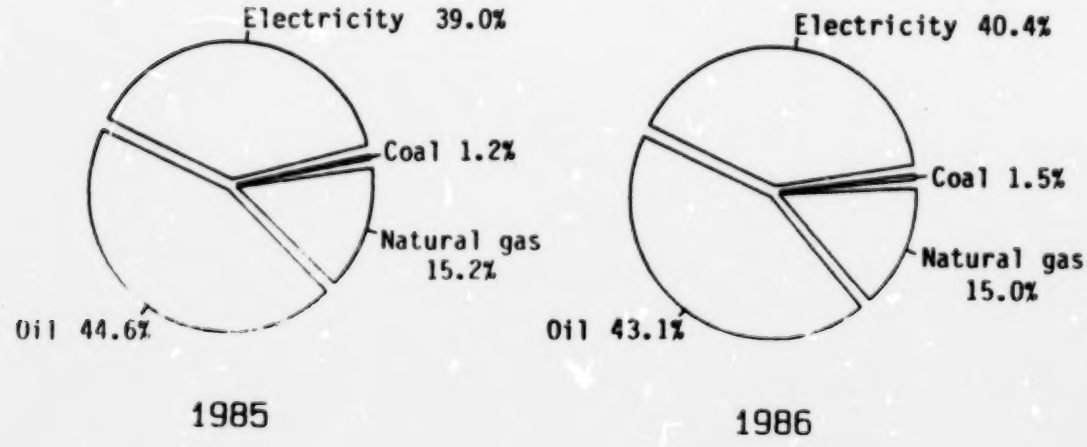
3. Natural gas

e: Estimate

Source: Statistics Canada, catalogues 45-002, 45-004, 55-002, 57-001, 57-003.

Graph 1

CONSUMPTION BY FORM OF ENERGY



b) Energy prices

The composite monthly index of energy prices in Québec declined in 1986. From January to September, the index fell by 13 points because of the plunging price of crude.

- Price of crude oil and petroleum products

Following the decision by OPEC, in December 1985, to reclaim its share of the export market by boosting its production rate, the price of oil plummeted in 1986. The impact of this international event obviously sent shock waves all the way to Québec. The average price of crude oil delivered to Québec refineries plunged 41.4% in one year, down from $38.50 a barrel in 1985 to $22.57 in 1986 (preliminary figure). Measured in constant dollars, the price paid in Québec in 1986 was equivalent to the asking price in 1977.

The fall in the price of crude oil was reflected in the price of petroleum products. Thus, from January to September 1986, the composite monthly index fell by 28%. This decline was offset in part by the reintroduction on May 2, 1986, of the sales tax on fossil fuels used for heating purposes.

Moreover, the provincial tax on fuels was modified in 1986. On May 2, the ad valorem tax on gasoline was replaced by a specific tax. On December 19, 1985, and May 2, 1986, the following regions were added to the list of the border regions benefiting from a reduced gasoline tax: Saguenay - Lac-Saint-Jean, Abitibi - Témiscamingue, Côte-Nord, Nouveau-Québec and the Gaspé peninsula.

- Price of natural gas

In 1986, the administered price system for natural gas was abandoned in Canada. This measure took effect on November 1, 1986, as a result of the Agreement on Natural Gas Markets and Prices signed on October 31, by the governments of Canada, Alberta, Saskachewan and British Columbia. Since then, the price of gas traded interprovincially is set through direct negotiation between buyers and sellers.

In 1986, the average selling price of natural gas delivered to Montréal dipped by 1.7%, compared with 1985. This drop is essentially attributable to the deregulation of gas prices. It should be noted that the price agreed upon does not take into account the special discounts offered by western Canadian producers to protect gas markets that are now more vulnerable because of the competition from other forms of energy.

Despite the relative stabilization in the city-gate price of natural gas, prices at the consumer level inched up in 1986. Thus, from January to September 1986, the monthly index of gas rose nearly 3%. This increase is due mainly to the introduction, on May 2, 1986, of the 9% sales tax on natural gas.

- Price of electricity

On May 1, 1986, Québec electricity rates jumped 5.4% in all consumption sectors. The previous year, the average price hike was only 2.6%. This increase, attenuated by a reduction in the price of surplus electricity in July, caused the composite monthly index to climb by 3.7% from January to September 1986.

An increase of 4.6%, applicable to all categories of subscribers, will be effective as of May 1, 1987. This rate of increase is still lower than the inflation rate projected for the coming year.

- Comparative Energy Prices

In 1986, the competitive position of the various forms of energy underwent a major upheaval. On October 1, 1986, the price of fuel oil, which a year earlier had been much higher than that of other forms of energy, was competing with those of natural gas and electricity. This phenomenon was due primarily to the spectacular fall in the international price of oil, recorded during the first few months of the year. This decline has more than made up for the May 2, 1986, reapplication of the sales tax on fossil fuels used for heating purposes.

Looking at the October 1, 1986, energy prices in the consumption column, one notes that fuel oil was relatively cheaper than natural gas, electricity and dual-energy in the residential sector. As the level of consumption rose, this advantage of fuel oil over other forms of energy for heating single-family homes also increased.

In the commercial sector, oil was the least expensive form of energy for apartments and office buildings, although in apartment buildings the price difference in relation to dual-energy was minimal.

Finally, in the high output industrial sector, heavy fuel oil had a definite advantage over electricity and firm service natural gas used for heating purposes. However, in the case of interruptable service, heavy fuel oil and electricity prices were about the same, whereas the price of natural gas was higher.

Table 2

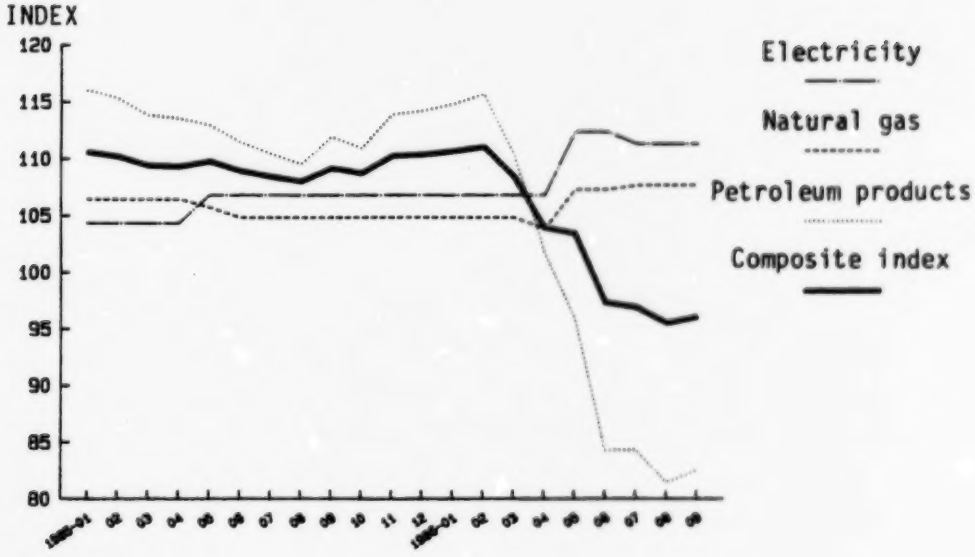
MONTHLY INDEX OF ENERGY PRICES BY FORM
JANUARY 1983 = 100

	1985	1986	
	Sept.	Jan.	Sept.
ELECTRICITY	107	107	111
NATURAL GAS	105	105	108
PETROLEUM PRODUCTS	112	115	83
COMPOSITE INDEX	109	111	96

Source: Ministère de l'Énergie et des Ressources

Graph 2

MONTHLY INDEX OF ENERGY PRICES BY FORM
JANUARY 1983 = 100



Source: Ministère de l'Énergie et des Ressources

c) Investments in the Energy Sector

- In nominal terms, investments in Québec's energy sector registered a fourth consecutive decline in 1986. They fell from nearly $1 910 million in 1985 to $1 670 million in 1986, a drop of 12.3%. A summary evaluation indicates they could reach $2 billion in 1987.

  The importance of investments in the energy sector relative to Québec's total investments was 9.2% in 1986, a drop of 2% compared to 1985 and 14.4% compared to the peak reached in 1982. This countercycle trend of investments in the energy sector is due mainly to the cutback in the

sums invested by Hydro-Québec for the development of hydroelectric potential since the end of phase one of the James Bay project. On the other hand, investments made by the oil and natural gas industries in their effort to adapt to the energy context of the 70s helped cushion the fall in energy investments up to 1984. Since then, all the industries in this sector have curtailed their investment programs.

The drop of 12% ($235 million) in energy investments illustrates the evolution of investments in the natural gas industry and in that of electricity. The first invested $111 million less in 1986 than in 1985, which represents a drop of nearly 51%. It should be noted that work to extend the gas transmission network and the distribution network terminated respectively in 1985 and 1986. In the electricity sector, investments declined by 7.2%, or $110 million.

- Investments in the Electricity Sector

In this sector[1], it is estimated that investments totalled $1 431 million in 1986, compared to $1 541 million the previous year. According to the latest information available, they should increase by 25% in 1987 and reach $1 786 million. Over the past two years, concentration of energy investments in the electricity industry intensified. The industry's share of these investments, which reached nearly 95% at the beginning of the decade, plunged to 74% in 1984 and rebounded to 85,6% in 1986. However, with respect to Québec's overall investments, this share is continually on the decline, from 20.2% in 1980 to 7.8% in 1986.

This drop is due primarily to cutbacks in spending in the area of power transmission, down from $436.4 million in 1985 to $328.3 million in 1986. Since 1985, special efforts have been made to optimize and consolidate the power transmission network. According to the latest data, investments in this area should increase strongly and level off at about $535 million in 1987.

With the introduction of sophisticated equipment required for the end of this decade, investments in production equipment picked up in 1986. They reached $385.5 million, compared to $327.8 million in 1985. With regard to the average level of $1.5 billion they had reached between 1980 and 1983 owing to the completion of phase one of the James Bay project, investments in this area had been weak since 1984. The upturn begun in 1986 should continue, and the forecast is that investments will total nearly $410 million in 1987.

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1. Investments by Hydro-Québec in 1986. For the previous years, Hydro-Québec investments and those of private producers of electricity are considered. However, those of the latter represent but a very small part of total investments in this sector.

Hydro-Québec has implemented a capital spending program aimed at improving the quality of service. Since 1984, this program involving over a billion dollars helped attenuate the decline of investments in electricity. These expenditures in the distribution network should continue until 1988. From $283.5 million in 1983, capital spending jumped to more than $500 million on the average over the past two years, and should reach $580 million in 1987.

- Investments in the Natural Gas Sector

Since 1981, the program of investments that has made natural gas available on the major markets located east of Montréal has required $1.6 billion. Work to extend the transmission and distribution networks is now largely completed.

The sums invested, totalling $212 million in 1981, peaked at $424 million in 1983 and shrunk to $220 million and $110 million respectively in 1985 and 1986. During the past year, investments essentially favored the distribution sector. In 1985, the completion of phase three of the Québec Natural Gas Laterals Program ended the intensive development of the transmission network, in which nearly $780 million were invested.

In the coming years, specific projects will be added to the investments required to maintain the natural gas distribution networkd in good working order. According to available information, it is estimated that approximately 100 $ million will be invested in 1987.

Table 3

QUÉBEC INVESTMENTS IN THE ENERGY SECTOR

1985	1985			
LEVEL (millions of dollars	Level (millions of dollars	Variation ($)	Level (millions of dollars	Variation (%)
OIL INDUSTRY	145.7pd	-15.5	132.8e	-8.9
NATURAL GAS INDUSTRY	219.2	-43.9	108.1e	-50.7
ELECTRICITY INDUSTRY	1 541.5	- 3.9	1 431.0e	- 7.2
TOTAL FOR THE ENERGY SECTOR	1 906.4pd	-12.0	1 671.9e	-12.3
INVESTMENTS IN THE ECONOMY AS A WHOLE	16 979.6pd	7.8	18 230.4e	7.4
INVESTMENTS IN THE ENERGY SECTOR/ TOTAL INVESTMENTS IN THE ECONOMY (%)		11.2		9.2

dp: Preliminary data
e: Estimate

Sources: - Private and Public Investments in Canada, Outlook for 1986 and Revised Outlook for 1986, Statistics Canada.

- Reports of companies in the energy sector.

- Investments in the Oil Sector

In 1986, investments in Québec's oil industry were estimated at nearly $135 million, a drop of 8.9% compared with 1985. Since the early 1980s, investments in this industry have been significant despite the shutdown of four refineries. The oil industry carried out numerous major projects to modernize the remaining refining facilities. In addition, it has improved the distribution network for petroleum products.

The decline in investments recorded since 1984 should continue in 1987. Of the five major projects undertaken by the refineries, only one remains to be completed, namely, that of Shell Canada, which intends to modify its catalytic cracking unit. This project, assessed at $80 million, should be completed in the fall of 1987.

The SOLIGAZ project could, however, increase the investments planned for 1987. This project is designed as a supply system to provide natural gas liquids to the petrochemical industry in Montréal and the neighboring regions. Out of the $250 million of the projected total investments, 110 $ million would be earmarked for the construction of a fractionation plant and storage facilities. Construction of the plant would begin in the summer of 1987 and end in the fall of 1989. This schedule presupposes that the National Energy Board (NEB) will approve, in the spring of 1987, an adjustment to the Interprovincial Pipeline (IPL) on the Sarnia-Montréal Section in order to allow delivery of natural gas liquids.

- Investments in Energy Conservation

An assessment of investments in Québec's energy sector musk take into account the sums spent in connection with projects to increase energy output. Thoroughly assessing the investments earmarked for these projects is a difficult task. However, it is possible to get an idea of the magnitude of the sums set aside for energy conservation in Québec by examining the impact of the subsidies granted.

For the period extending from February 1986 to March 1988, the budget of the new Canada-Québec Memorandum of Understanding on Conservation and Alternative Energy in the residential, industrial, commercial, institutional and transportation sectors amounts to $25 million. Although this amount seems modest at first glance, it should be noted that investments by private economic sources are added to the sums allocated by the two levels of government.

If this agreement is analyzed as to the impact of one of its aspects, that is, the energy output program in the industrial, commercial and institutional sectors, it is estimated that for each dollar received through subsidies, the private sector has invested more than 8 $ million. Because of the nature of the investments proper to each economic sector, the multiplier effect of government subsidies could, however, be different with respect to other aspects of the agreement. This evaluation makes it possible, nevertheless, to appreciate the importance of the investments aimed at mastering the use of energy.

Although the subsidies granted remain relatively modest, the resulting total investments appear to be quite important.

B/ Government Action

The strategy adopted by the provincial government in 1986 was intended to encourage, support and intensify the efforts of the various partners in the energy sector, and to ensure that the orientations taken corresponded closely to the goals pursued by Québec in this sector.

- With regard to electricity, Québec's effort concentrated on the development of its abundant hydroelectric resources. This development was assured by that of domestic and foreign markets.

  To facilitate and accelerate the penetration of electricity in Québec, Hydro-Québec set up a series of commercial programs: a program of subsidies for the installation of dual-energy heating in the residential, institutional, commercial and industrial sectors, a sales program of surplus electricity; and an assistance program to introduce new electrotechnology.

  Most of these programs ended in 1985, and the results obtained are spectacular. For example, in the industrial sector, the reduced rates and surplus electricity programs allowed Hydro-Québec to sell 119.6 bilion kWh in 1986.[2] These programs attracted new investments: the surplus electricity program allowed over 400 companies to become more competitive by using a less expensive form of energy. To benefit from the reduced rates program, companies had to make new investments. In late 1986, nearly 600 firms had taken advantage of this program.

  Specific pricing agreements led to investments on the part of Péchiney, Reynolds and QIT ($1.8 billion from 1982 to 1986), as well as to the beginning of operations at ABI in Bécancour, in September 1986. Morever, the new risk and benefit sharing formula, adopted by Hydro-Québec, allowed it to enter into an important contract with the Norwegian Norsk-Hydro company to build a magnesium plant, which should begin operations in 1989.

  The development of Hydro-Québec's abundant resources was also fostered by the growth of exports to the United States. In 1985 and 1986, electricity sales to American networks climbed from 9,6 billion kWh to 12.6 billion kWh.[3] During the same period, exports fell from $646 million to $378 million.[4] This decline is due to the drop in the price of crude on world markets - the selling price of electricity exported to the United States is, in effect, tied to that of competing energy sources.

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2. Including sales associated with the agreements stemming from the beginning of operations in new aluminum smelters.

3. Preliminary data

4. Preliminary data

During the past year, the provincial government stepped in to speed up the process of negotiations for future agreements. That year also marked the beginning of surplus energy deliveries, as provided in the contract signed with NEPOOL (33 billion kWh between 1986 and 1997). From March to December, firm energy and diversity power also began to be carried to the Citizens Utilities Company (67.7 million kWh, and at least 20 MWh in 1986). This last contract ends in 1990.

In 1986, many political and technical meetings intended to maintain our electricity exports took place between representatives from Québec, New York and New England States. It should be noted that in January, Québec's Prime Minister and the Minister of Energy and Resources met with representatives of New York's financial institutions. They also met in Washington with officials from the White House and Congress, and in particular with the Secretary of Energy. A meeting between the Governor of New York State and the Prime Minister of Québec was held in May, in Québec City. This meeting gave new impetus to negotations between the New York Power Authority and Hydro-Québec. As well, it led to the signing of an agreement between Québec and New York on technical cooperation in energy matters. One of the aspects of this agreement concerns the development of electricity exports.

On February 10, 1987, Hydro-Québec and Central Maine Power signed a memorandum of agreement that should soon lead to the signing of their most important long-term export contract guaranteeing power and energy. This agreement includes the sale of guaranteed electricity (a maximum of 900 MW per year, for a total not exceeding 122 TWh) for a period of 29 years (1992-2020). It also stipulates that export prices will be indexed according to various factors related to cost increases and inflation. In addition, the agreement states that Hydro-Québec will associate financially with Central Maine Power by forming a company that will build and operate a power transmission line in Maine.

In the fossil fuel sector, in 1986, the provincial government concentrated primarily on further ensuring adequate oil and natural gas supplies for Québec.

Following the shutdown of the Gulf refinery in Montréal, in late 1985, the provincial government intervened, insisting that the Ultramar company maintain certain activities at the Montréal refinery in the field of petrochemicals. Following theses actions, the phenol, cumene and cyclohexane production units were turned over to the Lavalin engineering company, which will continue these operations. As well, a commitment was made to increase the output capacity of the Saint-Romuald refinery and to transfer Ultramar's head office from Toronto to Montréal.

In April, the government corporation SOQUIP, in collaboration with the Gaz Métropolitain, SNC and Alberta Natural Gas companies, announced the formation of SOLIGAZ. This corporation will ensure supplies of propane and butane for the Montréal petrochemical industry. As mentioned, SOLIGAZ intends to carry propane and butane by pipeline from Alberta, after making some important changes in Interprovincial Pipeline's facilities between Sarnia and Montréal. It also intends to build a natural gas separation and processing plant in Montréal. All of these projects would require investments of over $250 million.

In October, a Québec-Alberta-Saskatchewan committee was created to study various ways of continuing to supply the Montréal market with Canadian crude and of maintaining the Sarnia-Montréal pipeline in operation. The conclusions of the committee are expectecd in early 1987.

With respect to natural gas, various aspects of the agreement signed between the Canadien government and the western provinces on the deregulation of natural gas prices and markets were gradually implemented in 1986. Québec intervened many times to defend its interest in numerous areas covered by the accord. It expressed its reservations with respect to the elimination of surplus tests and the relaxation of control mechanisms for export prices. Moreover, the Régie de l'électricité et du gaz set a new distribution tariff allowing Québec to make direct purchases from Alberta producers.

Finally, it should be noted that Gaz Métropolitain has created the Noverco holding company. Gaz Métropolitain will thus have greater flexibility to act and will be able to intensify its activities on all levels of the gas industry, both within and outside Canada (SOQUIP, a government corporation, holds 15% of Noverco's shares).

- In February 1986, the Québec and federal governments signed the Memorandum of Understanding on Conservation and Alternative Energy. This agreement revises and combines the energy conservation programs intended for the different consumption sectors (residential, institutional, commercial, industrial and transportation). It also maintains a single service for the administration and distribution of funds allocated under energy conservation programs. Government programs are now more efficient, and consumers can benefit from improved services.

  The major program in effect in the commercial, industrial and institutional sectors is the Programme de productivité énergétique. Under this program, over 200 energy analyses have been made in the industrial and commercial sectors during the last nine months of 1986. These analyses have identified ways of conserving energy that could save approximately $20 million.

- The provincial government is greatly interested in the indirect effects of the development of various forms of energy, either through the production of equipment or by providing energy-related services. It is especially involved in promoting sales for Québec industries, and is concerned about the international repercussion of activities in the

energy sector. Thus, it has accepted to head the energy group at the Conférence des chefs d'État et de gouvernement des pays francophones (the conference of heads of state and government from French-speaking countries) held in Paris in February 1986. Québec intends to set up with French-speaking countries agencies to promote the exchange of information, goods and services in the energy sector. In addition, Québec will host the next Conference of French-speaking countries in September 1987. This meeting will be an excellent opportunity to attract once again the attention of the international community on Québec's energy industries.

LAND SECTOR

INTRODUCTION

The public lands of Québec have long been considered an inexhaustible reserve of natural resources by both the public at large and government administrators. They constitute a huge territory (1 500 000 km^2) containing extensive commercial forests, an immense potential for mineral and hydroelectric production, fresh-water reserves found nowhere else in the world, etc. Public lands and the resources derived from them are one of the pillars of Québec's economy.

Managing this vast territory is the responsibility of the land sector of the ministère de l'Énergie et des Ressources.

THE OBJECTIVES OF THE LAND SECTOR

The overall objective of the land sector is to ensure that the best possible use is made of the lands in the public domain by considering their potential as well as the needs of their various users and by instituting an appropriate style of management.

To achieve this overall objective, the land sector must seek to establish a framework and conditions conducive to a cooperative relationship among the major participants in making land use decisions and setting up rules for land use. The land sector must also adapt land management (sales, purchases, leasing, transfers, etc.) to the type of land use selected and to current policies, make the land register complete and accessible and ensure full compliance with laws and regulations concerning public lands.

The Act respecting the lands in the public domain

To help better fulfil its mandate, the Department has prepared a new law more closely adapted to current needs as well as a revision of the pertinent regulations. This exercise was preceded by in-depth discussions involving the departments and agencies concerned with the management of public lands.

Among other things, this new bill provides the creation of a catalogue of lands in the public domain, a land use plan, a register of resource development rights or rights to use public lands. This future law will grant the Minister a greater degree of autonomy, allowing him to approve transactions without useless delays. It also establishes the right of any citizen to travel on public lands provided he respects the safety rules and the rules for the protection of the public domain currently in force.

Once the bill has been passed, the Department will complete its revision of the regulations and begin gradually instituting new management policies.

Land use plans for public lands

The land sector has finished drawing up land use plans for the public lands within the territory of the regional county municipalities. Discussions were held with each RCM so as to coordinate the land use plans with the development plans according to the process provided for in the Act respecting land use planning and development. Thus far this operation has been completed for seventy-five RCMs

In 1987-1988, the Department will continue the process of drawing up land use plans for public lands located outside the RCMs

The administration of land rights

The majority of the applications submitted to the Department involve the various types of vacation housing permitted on public lands: family cottages, hunting camps, etc. In 1986-1987, 480 new leases and 2 250 new occupation licences were issued, bringing the total number of rentals to 32 495. Each one is being followed up to ensure that provisions of the lease are respected and the annual fees are paid in full. The sector is also in charge of authorizing transfers and making cancellations when necessary. In 1986-1987, the sector confirmed the sale of 791 lots by letters patent. These transactions altogether earned 5 678 956 for the gouvernement du Québec.

Many of the applications processed by the land sector were filed by various departments and public agencies as well as by the federal government. In most of these cases, the transactions must be approved by the Minister or by the Conseil exécutif. In 1986-1987, 47 transactions of this type were carried out.

Administration of registers and files

Every real estate transaction (sales, rentals, servitudes, transfers, cancellations, etc.) must be recorded in the Terrier. This is a register containing all the information respecting real rights granted over lands in the public domain. This information is open to the public and to government departments and agencies. In 1986-1987, more than 26 000 entries were added to the various registers.

The creation of data banks for land tenure and land use (SITAT), begun in 1984, was pursued in 1986. The sector has encoded more than 30% of the data to be entered in these banks; the operation should be completed in 1990.

Customer services

Each year the land sector receives a large number of request for information about public lands and their use. In fact, more than 22 000 written and verbal requests for information on land tenure and concessions were received by the central office in 1986-1987. The various regional offices received 100 000 requests in all, nearly half of which were presented in person.

Geographic knowledge of the territory

The mission of the land sector also includes improving geographic knowledge of Québec's territory. This involves four specific goals.

First of all, the sector is in charge of setting up the best possible infrastructure for geographic knowledge for governmental and private needs (geodesic network, basic cartographic coverage, description of the parcelling out of public and private lands). Secondly, it attempts to rationalize the development of governmental systems so as to increase their efficiency and maximize the benefit derived from the resources invested. It also promotes the emergence of Québec's expertise in the field of geographic information.

Lastly, it is responsible for protecting Québec's territorial integrity by defining provincial borders.

Each year some 186 million dollars are spent to increase our knowledge of Québec's territory. The Government devotes 33 million dollars to this task. Between 20 and 25 private companies employing 4 000 to 5 000 Quebecers are working in this field.

On the international scene, there are a number of large-scale projects involving the establishing of cadastral systems, infrastructure management and resource inventories. Québec has all the necessary assets to enable it to claim a part of this market. The scope and the quality of the work Québec has carried out on its own territory are well known. However, research and development, training and market exploration will have to be increased considerably if we want to meet the competition head on.

THE REFORM OF QUÉBEC'S CADASTRAL SYSTEM

In 1985, Québec began a reform of its cadastral system. This is a wide-ranging operation, to be completed over a period of ten years at an estimated cost of 84 million dollars (1984).

The goal of the program is to reconstitute a thorough and precise picture of the parcelling out of Québec's territory, which will then be carefully updated. The land sector wishes to make the system more accessible and easier to use. The data bank to be set up will be available for many different uses. Implementing this new system will depend upon the establishment of a complete geodesic network and the production of adapted topographic maps and official cadastral maps.

The choices of technologies to be used in the project were made after considering both the requirements of the task at hand and the goals pursued. The entire process was in fact designed for numerical data processing making it possible to combine high performance standards with precision and ease of access.

There are many interesting facets to the management and the financing of this cadastral reform. The Québec government assumes a guiding role, but the municipal governments are called on to participate. Private enterprise, which is in charge of the actual production stage, is provided with a unique opportunity to develop its expertise and renew its equipment. Financing is provided through an independent fund, a large part of which is derived from user fees (registration fees) and eventually from the sale of the products of this reform.

During the first two years of the reform, applications from 160 municipalities were selected. Nearly half of them will receive their urban maps this year. Furthermore, the work carried out over the past two years has resulted in the official filing of maps covering some 9 800 lots.

Along with the cadastral reform, the land sector has been pursuing work undertaken to consolidate the infrastructure for knowledge about territories in non-cadastred areas, the goal being to draw up an inventory of resources available for development.

Finally, the land sector contributes to defining and officializing international and interprovincial borders. An inventory of lands placed under the jurisdiction of the federal government is also kept up to date. These lands can thus be returned to Québec's public domain as soon as they are no longer required for purposes provided for under federal-provincial agreements.